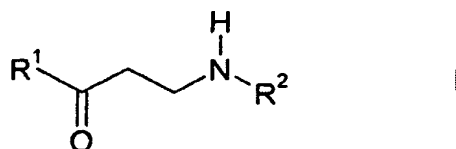


Patent Claims

1. Monoalkylaminoketones of the formula I



in which

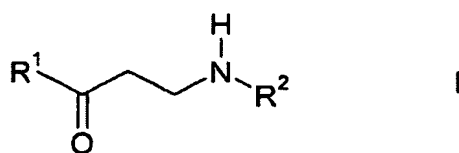
R^1 denotes a saturated, unsaturated or aromatic heterocyclic radical which is unsubstituted or mono- or polysubstituted by R^3 and/or R^4 ,

R^2 denotes alkyl having 1-20 C atoms,

R^3, R^4 each, independently of one another, denote H, alkyl or alkoxy having 1-20 C atoms, aryl, aryloxy or COOR^2 , F, Cl, Br, OH, CN, NO_2 , $\text{N}(\text{R}^2)_2$ or NHCOR_2 ,

and salts and solvates thereof.

2. Process for the preparation of monoalkylaminoketones of the formula I



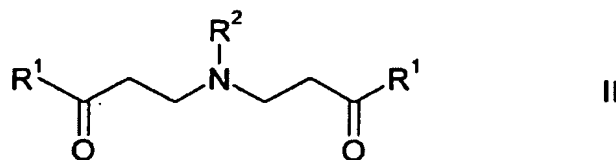
in which

R^1 denotes a saturated, unsaturated or aromatic heterocyclic radical which is unsubstituted or mono- or polysubstituted by R^3 and/or R^4 ,

R^2 denotes alkyl having 1-20 C atoms,

R^3, R^4 each, independently of one another, denote H, alkyl or alkoxy having 1-20 C atoms, aryl, aryloxy or COOR^2 , F, Cl, Br, OH, CN, NO_2 , $\text{N}(\text{R}^2)_2$ or NHCOR_2 ,

by reaction of compounds of the formula II



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in which

R^1 and R^2 have the meaning indicated above, in the presence of an alkylamine of the formula R^2NH_2 , in which R^2 has the meaning indicated above.

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3. Process according to Claim 1, in which R^1 denotes phenyl or 2-thienyl.

4. Process according to Claim 1 or 2, in which R^2 denotes methyl, ethyl, n-propyl or isopropyl.

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5. Process for the preparation of compounds of the formula I according to one or more of Claims 1 to 3, characterised in that the pH for the conversion of the compounds of the formula II into the compounds of the formula I is adjusted to about pH 2-7.5 by addition of an alkylamine of the formula R^2NH_2 .

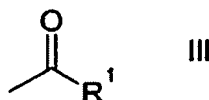
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6. Process for the preparation of compounds of the formula I according to one or more of Claims 1 to 4, characterised in that the conversion of the compounds of the formula II into the compounds of the formula I is carried out at $0^\circ - 200^\circ\text{C}$.

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7. Process for the preparation of compounds of the formula I according to one or more of Claims 1 to 5, characterised in that firstly the compound of the formula II is obtained by reaction of a mixture of a form-aldehyde source with a corresponding alkylammonium salt and a ketone of the formula III

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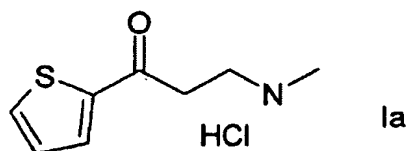


in which R^1 has the meaning indicated in Claim 1,

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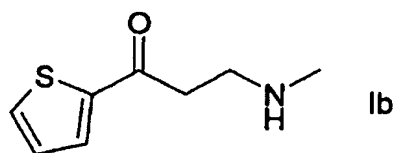
in the presence of a strong acid, and the compounds of the formula II obtained in this way are employed without further isolation for the preparation of the compounds of the formula I.

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8. Process for the preparation of compounds of the formula I according to Claim 6, characterised in that the pH of the strongly acidic reaction mixture comprising the compounds of the formula II is increased to about pH 2-7.5, without further isolation of this compound, by addition of an alkylamine of the formula R^2NH_2 , and the mixture is subsequently warmed.
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9. Process for the preparation of compounds of the formula I according to Claim 7, characterised in that the reaction mixture comprising the compounds of the formula II is warmed to 0°C to 200°C after addition of a corresponding alkylamine.
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10. Process according to one or more of Claims 1 to 8 for the preparation of 3-methylamino-1-phenyl-1-propanone or 3-methylamino-1-(2-thienyl)-1-propanone.
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11. Process according to one or more of Claims 1 to 9, characterised in that an acid-addition salt of the compound of the formula II is employed, and an acid-addition salt of the compound of the formula I is obtained.
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12. Compound of the formula Ia:



13. Compound of the formula Ib:

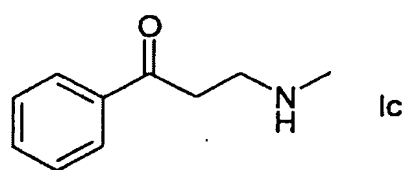
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and salts and solvates thereof.

14. Compound of the formula 1c:



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and salts and solvates thereof.

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